

**CLAIMS**

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is as follows:

- 1        1. A method for automatically determining awareness settings among people  
2        in a distributed working environment comprising the steps of:  
3                receiving real-time data produced by an event; and  
4                automatically adjusting a distance according to a level of privacy  
5        desired by individual users and a need of a collaborative project to have some  
6        shared information about individual user activities using an elastic spring  
7        energy model.
- 1        2. The method for automatically determining awareness settings among  
2        people in a distributed working environment recited in claim 1, wherein the  
3        step of automatically adjusting a distance is performed by a multi-agent  
4        system that automatically and selectively provides perceived information to  
5        others based on perceived events or status associated with others.
- 1        3. The method for automatically determining awareness settings among  
2        people in a distributed working environment recited in claim 2, wherein the  
3        elastic spring energy model governs reaction of an information system in real  
4        time when events or status changes.
- 1        4. The method for automatically determining awareness settings among  
2        people in a distributed working environment recited in claim 2, wherein each  
3        agent acts on its user's behalf to adjust an awareness level among different  
4        users.

1 5. The method for automatically determining awareness settings among  
2 people in a distributed working environment recited in claim 1, further  
3 comprising the step of dividing communications between different users into  
4 different channels and specifying a clearness level for each channel.

1 6. The method for automatically determining awareness settings among  
2 people in a distributed working environment recited in claim 1, wherein the  
3 elastic spring model is a dynamic model so that the step of automatically  
4 adjusting a distance takes into consideration events which happen at each  
5 user's site.

1 7. The method for automatically determining awareness settings among  
2 people in a distributed working environment recited in claim 1, wherein the  
3 elastic spring model takes into consideration a user's frustration level if  
4 information about the user is revealed to another on the occurrence of a  
5 particular event.

1 8. The method for automatically determining awareness settings among  
2 people in a distributed working environment recited in claim 1, wherein the  
3 elastic spring model determines potential energy vectors which encode a  
4 user's preference on distances.

1 9. The method for automatically determining awareness settings among  
2 people in a distributed working environment recited in claim 1, wherein the  
3 elastic spring model determines potential energy vectors which encode  
4 awareness requirements for a collaborative task.

1 10. The method for automatically determining awareness settings among  
2 people in a distributed working environment recited in claim 1, wherein the

3 elastic spring model determines potential energy vectors which encode a  
4 user's preference on distances and awareness requirements for a collaborative  
5 task.

1 11. The method for automatically determining awareness settings among  
2 people in a distributed working environment recited in claim 1, wherein a  
3 matrix and vector look up model is used to determine the distances among  
4 distributed users, the values of the matrix and the vector encoding the  
5 preferences of the user and the preference requirements of the other user who  
6 receives the awareness information.

1 12. The method for automatically determining awareness settings among  
2 people in a distributed working environment recited in claim 11, wherein the  
3 matrix and vector additionally encode the preferences of the task and the  
4 preferences of the organization,